

## FORMATION METHOD OF THIN FILM, SILICON THIN FILM AND FORMATION METHOD OF SILICON THIN-FILM TRANSISTOR

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### Abstract

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**PURPOSE:** To obtain a silicon thin film whose crystallinity at a low temperature is good by a method wherein a binary material film is grown on a substrate and, in succession, the silicon film is grown on the binary material film by an atomic-layer deposition method wherein the substrate is exposed alternately to two atmospheres which separately contain individual atoms constituting a binary material.

**CONSTITUTION:** By using an atomic-layer deposition method wherein a substrate 1 is exposed alternately to two atmospheres which contain individual atoms constituting a binary material, a binary material film 2 is grown on the substrate 1, and, in succession, a silicon film 3 is grown on the binary material film 2. Thereby, it is possible to obtain the silicon film whose crystallinity is good.